ABSTRACT OF THE DISCLOSURE

An intraoral electromuscular stimulation device and method to treat a breathing disorder. The stimulation device includes a first electrode, a first support member that maintains the first electrode in a sublingual location posterior to a frenulum and proximate to one of a first molar, a second molar and a third molar of a patient. A second electrode is maintained in a sublingual position posterior relative to the first electrode by a second support member. A further embodiment of the stimulation device includes a sensor that detects a respiratory parameter of a patient and outputs a signal indicative thereof. A control unit receives the signal from the sensor, distinguishes between inspiration and expiration, and initiates an electrical stimulation at a stimulation time prior to onset of inspiration and continues stimulation through a portion of inspiration at a level sufficient to induce muscle contraction without pain.